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STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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May 23, 2007

TO: Parties and Intervenors

FROM: S. Derek Phelps, Executive Director

RE: **DOCKET NO. 330** – Optasite Towers, LLC and Omnipoint Communications, Inc. application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility at 1294 Pleasant Valley Road North, Groton, Connecticut.

As stated at the hearing in Groton on April 18, 2007, after the Council issues its draft findings of fact, parties and intervenors may identify errors or inconsistencies between the Council's draft findings of fact and the record; however, no new information, evidence, argument, or reply briefs will be considered by the Council.

Parties and Intervenors may file written comments with the Connecticut Siting Council on the Draft Findings of Fact issued on this docket by May 31, 2007.

SDP/DM/laf

Enclosure

Date: February 26, 2007

Docket No. 330

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LIST OF PARTIES AND INTERVENORS
SERVICE LIST

Status Granted	Status Holder (name, address & phone number)	Representative (name, address & phone number)
Applicant	Optasite Towers LLC and Omnipoint Communications, Inc.	Julie Kohler, Esq. Carrie L. Larson, Esq. Deborah S. Erickson, Esq. Cohen and Wolf, P.C. 1115 Broad Street Bridgeport, CT 06604 (203) 368-0211 (203) 394-9901 fax jkohler@cohenandwolf.com clarson@cohenandwolf.com derickson@cohenandwolf.com

DOCKET NO. 330 – Optasite Towers, LLC and Omnipoint } Connecticut
Communications, Inc. application for a Certificate of }
Environmental Compatibility and Public Need for the } Siting
construction, maintenance and operation of a telecommunications }
facility at 1294 Pleasant Valley Road North in Groton, } Council
Connecticut.

May 18, 2007

DRAFT

Findings of Fact

Introduction

1. Pursuant to Chapter 277a, Sections 16-50g et seq. of the Connecticut General Statutes (CGS), as amended, and Section 16-50j-1 et. seq. of the Regulations of Connecticut State Agencies, Optasite, Inc. (Optasite) and Omnipoint Communications, Inc., a subsidiary of T-Mobile USA, Inc., (T-Mobile) applied to the Connecticut Siting Council (Council) on February 22, 2007 for the construction, operation, and maintenance of a telecommunications facility to be located at 1294 Pleasant Valley Road North in the Town of Groton, Connecticut. (Optasite 1, p. 1)
2. Optasite is a Delaware corporation with offices at One Research Drive, Suite 200C, Westborough, Massachusetts. Optasite would construct and maintain the proposed facility. (Optasite 1, p. 3)
3. T-Mobile is a Delaware corporation with a Connecticut office at 100 Filley Street, Bloomfield, Connecticut. The company and its affiliated entities are licensed by the Federal Communications Commission (FCC) to construct and operate a personal wireless services system in Connecticut. T-Mobile does not conduct any other business in the State of Connecticut other than the provision of wireless services under FCC rules and regulations. (Optasite 1, p. 3)
4. The parties in this proceeding are the applicants, Optasite and T-Mobile. (Transcript, April 18, 2007, 3:00 p.m. [Tr. 1], p. 6)
5. The proposed facility would provide wireless service in the towns of Groton and Ledyard along Routes 12 and 32, as well as in adjacent areas. (Optasite 1, p. 1)
6. The main objective T-Mobile seeks to achieve at this site is the enhancement of coverage, both in-building and in-vehicle, along Route 12. It is particularly interested in providing reliable in-building coverage on the naval base next to Route 12 where T-Mobile has a large number of customers since the Navy Exchange is a licensed re-seller of T-Mobile phones. (Tr. 1, pp. 21-22)
7. Pursuant to CGS § 16-50m, the Council, after giving due notice thereof, held a public hearing on April 18, 2007, beginning at 3:00 p.m. and continuing at 7:00 p.m. at Groton's Town Hall Annex at 134 Groton Long Point Road in Groton, Connecticut. (Tr. 1, p. 2 ff.)

8. The Council and its staff conducted an inspection of the proposed site on April 18, 2007, beginning at 2:00 p.m. On the day of the field inspection, the applicants attempted to fly a balloon beginning around 7:45 a.m. to simulate the height of the proposed tower. Due to high winds, however, the applicants lost several balloons and were unable to keep a balloon at the approximate height of the proposed tower for very long. Weather conditions did not allow the balloon flight to provide a fair assessment of the tower's visibility to the surrounding vicinity. (Tr. 1, p. 33)
9. Pursuant to CGS § 16-507(b), notice of the applicants' intent to submit this application was published on February 13 and 15, 2007 in New London's The Day and on February 12 and 14, 2007 in the Norwich Bulletin. (Optasite 1, p. 4)
10. In accordance with CGS § 16-507(b), Optasite sent notices of its intent to file an application with the Council to each person appearing of record as owner of property abutting the property on which the site is located. (Optasite 1, p. 4, Exhibit E)
11. Optasite did not receive return receipts from two of the seven abutters to whom notices were sent. A second certified mailing was sent to the two property owners from whom receipts were not received on March 23, 2007. (Optasite 2, Response 1)
12. Optasite did not receive return receipts from the second notice sent to two abutters and sent a third certified notice. It had not received any return receipts from these two abutters at the time of the Council's public hearing. (Tr. 1, p. 35)
13. Pursuant to CGS § 16-507 (b), Optasite provided notice to all federal, state and local officials and agencies listed therein. (Optasite 1, p. 4, Exhibit C)
14. Optasite posted a sign at the driveway entrance to the property on which the proposed facility would be located on April 3, 2007. The sign was four feet by six feet with black lettering on a white background. (Tr. 1, p. 35)

State Agency Comment

15. Pursuant to CGS § 16-507, the Council solicited comments on Optasite's application from the following state departments and agencies: Department of Environmental Protection, Department of Public Health, Council on Environmental Quality, Department of Public Utility Control, Office of Policy and Management, Department of Economic and Community Development, and the Department of Transportation. The Council's letters requesting comments were sent on March 20, 2007 and on April 20, 2007. (CSC Hearing Package dated March 20, 2007 and Letter to State Agency heads dated April 20, 2007)
16. Connecticut's Department of Public Health responded to the Council's solicitation with no comments. (DOPH Memorandum dated March 29, 2007)
17. The Connecticut Department of Transportation responded to the Council's solicitation with no comments. (ConnDOT Letter dated April 16, 2007)
18. The Council did not receive comments from any other state agencies. (Record)

Municipal Consultation

19. Optasite submitted letters and technical reports to the Towns of Groton and Ledyard on December 15, 2006. The technical reports described the proposed facility and discussed the public need for it. (Optasite 1, p. 18)
20. Optasite representatives met with Groton officials, including Mark Oefinger, Town Manager, and Michael Murphy, Director of Planning and Development, to discuss the proposed facility. (Optasite 1, p. 18)
21. The Town of Ledyard declined to comment on the proposal. (Optasite 1, p. 18)
22. The Town of Groton has indicated that it has a gap in its emergency services coverage in the area of the proposed facility and may be interested in locating equipment on the proposed tower. (Optasite 2, Response 4)
23. The Town of Groton's Planning Department submitted a letter addressing Optasite's proposal in which it identified several items that it wanted addressed. These items were: that there should not be any advertising on the tower; that the tower should be removed within 12 months should it stop being used; that adequate fire access be provided for the fire department; and that the tower should conform to state building code requirements. (Letter from Groton Planning Department dated April 18, 2007)

Public Need for Service

24. The United States Congress, through adoption of the Telecommunications Act of 1996, recognized the important public need for high quality telecommunication services throughout the United States. The purpose of this Act, which was a comprehensive overhaul of the Communications Act of 1934, was to "provide for a competitive, deregulatory national policy framework designed to accelerate rapidly private sector deployment of advanced telecommunications and information technologies to all Americans." (Optasite 1, p. 5)
25. The Telecommunications Act of 1996 prohibits local and state bodies from discriminating among providers of functionally equivalent services. (Council Administrative Notice, Telecommunications Act of 1996)
26. The Telecommunications Act of 1996 prohibits any state or local agency from regulating telecommunications towers on the basis of the environmental effects of radio frequency emissions to the extent that such towers and equipment comply with FCC's regulations concerning such emissions. This Act also blocks the Council from prohibiting or acting with the effect of prohibiting the provision of personal wireless service. (Council Administrative Notice, Telecommunications Act of 1996)

27. In an effort to ensure the benefits of wireless technologies to all Americans, Congress enacted the Wireless Communications and Public Safety Act of 1999 (the 911 Act). The purpose of this legislation was to promote public safety through the deployment of a seamless, nationwide emergency communications infrastructure that includes wireless communications services. (Optasite 1, p. 6)
28. The proposed facility would be an integral component of T-Mobile's E911 network. (Optasite 1, p. 7)
29. Verizon and Sprint/Nextel have expressed a general interest in locating antennas on the proposed tower. Neither carrier, however, has entered into a lease or memorandum of agreement. (Optasite 2, Response 6)
30. The Town of Groton has indicated that it has a gap in its emergency services communications coverage in this area of town and that it could be interested in locating antennas on this tower. (Optasite 3, Pre-filed testimony of Tom Flynn, p. 4; Tr. 1, pp. 40-41)

Site Selection

31. Optasite began its search for a facility in this area in May of 2006 at the request of T-Mobile, which determined it had a need for better coverage in this area. (Optasite 2, Responses 2 & 3)
32. Optasite found no existing towers or transmission line structures with sufficient height for T-Mobile's purposes in the northern Groton area. (Optasite 1, p. 8)
33. Optasite identified fifteen towers, either existing or proposed, within approximately four miles of the site search area. (Optasite 1, p. 8)
34. Optasite considered several other sites in addition to proposed site. Other properties considered are described below with a determination of their suitability.

Location Considered	Suitability
1294 Pleasant Valley Road North, owned by JFM Enterprises	Rejected because it is developed for residential use.
336 Briar Road, owned by George and Beverly Letz	Property described as "undevelopable" in Groton assessor's office because of extreme grade and rocky terrain
103 South Road, Ledyard	Owner of property declines offers to consider tower on property
0 Pleasant Valley Road North, site of Trident Park Navy Housing	Property does not have sufficient room available for tower site
0 Route 12, Navy Sub Base -- water tank on site	Optasite sought to co-locate on water tank but were denied

(Optasite 1, Exhibit H; Optasite 2, Response 15)

35. Repeaters, microcell transmitters, distributed antenna systems and other types of transmitting technologies are not a practicable or feasible means to provide service within the sizeable coverage gap T-Mobile is seeking to cover in this area. (Optasite 1, p. 7)

Site Description

36. Optasite's proposed facility would be on a 3.66 acre parcel located at 1294 Pleasant Valley Road North. The property is owned by JFM Enterprises. It is used as a dog boarding and grooming business and a horse paddock, but large portions of it are undeveloped. The property is located east of Route 12 in Groton. Route 32, which would also be covered by this site, is located across the Thames River in Waterford. (Optasite 1, p. 2; Record)
37. The JFM property is zoned RU-20, a designation that is primarily for single family residences on 20,000 square foot lots. Telecommunications towers are allowed in RU-20 zoning districts subject to the approval of a special permit. (Optasite 1, p. 2; Optasite Bulk Filing, Groton Zoning Regulations)
38. The proposed facility would be located in the north central portion of the JFM property at the edge of a cleared area. The facility would consist of a 140-foot steel monopole within a 50-foot by 50-foot compound. The compound would be enclosed by an eight-foot chain link fence. (Optasite 1, p. 9)
39. Optasite's lease area on the JFM property would be 50 feet by 50 feet. (Tr. 1, p. 41)
40. The tower would be located at 41° 23' 59.9" latitude and 72° 04' 45.2" longitude. Its elevation at ground level would be 142 feet above mean sea level. (Optasite 1, Exhibit A)
41. The tower would be designed in accordance with the specifications of the Electronic Industries Association Standard ANSI/EIA/TIA-222-G, "Structural Standards for Steel Antenna Towers and Antenna Support Structures," and would comply with the State Building Code. (Optasite 2, Response 7)
42. The tower would be designed to accommodate four sets of antennas for the wireless carriers active in Connecticut and public safety antennas for the City of Groton, if requested. (Optasite 1, p. 2)
43. On the proposed tower, T-Mobile would initially install six antennas on a platform at a centerline height of 137 feet above ground level (AGL). (Tr. 1, p. 37)
44. T-Mobile's ground equipment would consist of cabinets on a concrete pad. (Optasite 2, Response 18)
45. T-Mobile would use batteries as its back-up power source. (Optasite 2, Response 19)
46. Installation of the facility's access road would require the excavation of approximately 55 cubic yards of material. Another estimated 592 cubic yards of unsuitable fill material would need to be excavated in order to supply adequate structural fill for the proposed tower foundation and equipment compound. (Optasite 2, Response 9)

47. Vehicular access to the site would extend from Pleasant Valley Road North 180 feet over an existing asphalt driveway then 60 feet over an existing gravel driveway and then 130 feet over a new gravel access drive that would be installed. (Optasite 1, p. 9; Exhibit A)
48. Utilities to the site would extend from existing service on Pleasant Valley Road North underground to the proposed compound. (Optasite 1, p. 9)
49. No blasting should be needed to develop this facility. (Optasite 2, Response 10)
50. The property closest to the proposed compound is located 45 feet to the north. It is owned by Robert and Rosemary Rohner. (Optasite 1, Exhibit A)
51. The tower's setback radius would extend approximately 90 feet onto the abutting property to the north. (Optasite 1, Exhibit A)
52. The nearest residence is located 375 feet to the southeast. It is owned by Andrew and Jennifer Macierowski. (Optasite 1, Exhibit A)
53. There are 15 residences within 1,000 feet of the proposed tower location. (Optasite 2, Response 8)
54. The land use in the vicinity of the propose facility is primarily residential, with some commercial. Forested land and a horse corral about the host property to the north. (Optasite 1, Exhibit I)
55. The estimated cost of construction for this facility, not including carriers' antennas and support equipment, is:

Tower and Foundation Costs	\$ 74,000
Site development costs	74,000
<u>Utility Installation</u>	<u>31,000</u>
Total costs	\$179,000

(Optasite 1, p. 20)

Environmental Considerations

56. The proposed project would have no effect on historic, architectural, or archaeological resources listed on or eligible for the National Register of Historic Places. (Optasite 1, Exhibit M)
57. No known extant populations of Federal or State Endangered, Threatened or Special Concern Species occur at the proposed site. (Optasite 1, Exhibit M – Letter from Connecticut Department of Environmental Protection)
58. According to the U.S. Fish and Wildlife Service, no federally-listed or proposed, threatened or endangered species or critical habitat occur in the area of the proposed facility. (Optasite 1, Exhibit M – Letter from U.S. Fish and Wildlife Service)

59. The closest wetlands to the proposed facility are approximately 110 feet to the south of the proposed compound. (Optasite 2, Response 13)
60. Optasite would employ soil erosion control measures and other best management practices, as established by the Council of Soil and Water Conservation, during the construction of the proposed facility. (Optasite 1, p. 17)
61. No trees with a diameter of six inches or greater at breast height would be removed to construct the access road or compound. (Optasite 1, Exhibit A – Letter from Clough Harbour & Associates)
62. The Federal Aviation Administration determined that the proposed facility would not be a hazard to air navigation and would not require marking or lighting. (Optasite 1, Exhibit Q)
63. The maximum power density from the radio frequency emissions of T-Mobile's proposed antennas would be 2.64% of the standard for Maximum Permissible Exposure, as adopted by the FCC, at the base of the proposed tower. This calculation was based on a methodology prescribed by the FCC Office of Engineering and Technology Bulletin No. 65E, Edition 97-01 (August 1997) that assumes all antennas would be pointed at the base of the tower and all channels would be operating simultaneously. (Optasite 1, Exhibit N)

Visibility

64. The proposed tower would be visible year-round from approximately 245 acres within a two-mile radius of the site. Of this total, water on the Thames River accounts for approximately 217 acres. An additional 23 acres are within the US Naval Reservation located west of the site. (Optasite 1, Exhibit J)
65. The tower would be seasonally visible from approximately 37 acres within a two-mile radius of the site. These acres are mostly limited to the immediate vicinity of the proposed facility, generally within 0.20 miles of the site. (Optasite 1, Exhibit J)
66. The proposed tower would be visible for approximately 1,650 feet on Route 12. (Optasite 1, Exhibit J – Viewshed Map)
67. An estimated eight residential properties would have a partial year-round view of the proposed tower. Two or three more residences would have a year-round view once the Woods Walk Condominiums, under construction at the time of this application, are finished. (Optasite 1, Exhibit J)
68. Approximately ten residences would have partial, seasonal views of the proposed tower. (Optasite 1, Exhibit J)

69. The visibility of the proposed tower from different vantage points in the surrounding vicinity is summarized in the following table.

<u>Location</u>	<u>Visible</u>	<u>Approx. Portion of (120') Tower Visible (ft.)</u>	<u>Approx. Distance and Direction to Tower</u>
	Site		Site
1 – 1276 Pleasant Valley Road North	Yes	120'	470 feet; NE
2 – Ohio Avenue north of Rhode Island Drive	Yes	80'	900 feet; NE
3 – Murphy's Drive in Woods Walk Condos	Yes	20'	2400 feet; NE
4 – Pleasant Valley Road North, north of entrance to host property	Yes	50'	120 feet; SW

(Optasite 1, Exhibit J)

Existing and Proposed Wireless Coverage

70. T-Mobile's licensed operating frequencies in the New London area are:

Transmit: 1935.000 to 1945.000 MHz & 1983.000 and 1984.000 MHz

Receive: 1855.000 to 1865 MHz & 1903.000 and 1904.000 MHz

(Optasite 2, Response 22)

71. T-Mobile has an existing coverage gap of approximately 1.5 miles on Route 12. It has two smaller gaps along Route 32 that total 1.3 miles. The proposed facility would satisfactorily cover the gap on Route 12. It would also cover the smaller, more southerly gap on Route 32. The proposed site, however, is not designed to completely cover T-Mobile's gaps on Route 32. T-Mobile has plans to cover this area with another site in the future. (Optasite 2, Response 21)
72. T-Mobile's antennas would cover approximately two miles along Route 12 from the proposed site. (Tr. 1, p. 36)
73. T-Mobile's antennas could provide in-vehicle coverage for approximately four miles on Route 32. (Tr. 1, pp. 36-37)
74. T-Mobile's modeling of the proposed site's coverage was confirmed by a drive test. (Tr. 1, p. 16)
75. T-Mobile's minimum design signal strength is -84 dBm, which is the minimum required for in-vehicle coverage. (Optasite 2, Response 23)
76. The existing signal strength along Route 12 in the area that would be served by the proposed facility ranges down to -110 dBm. (Optasite 2, Response 24)

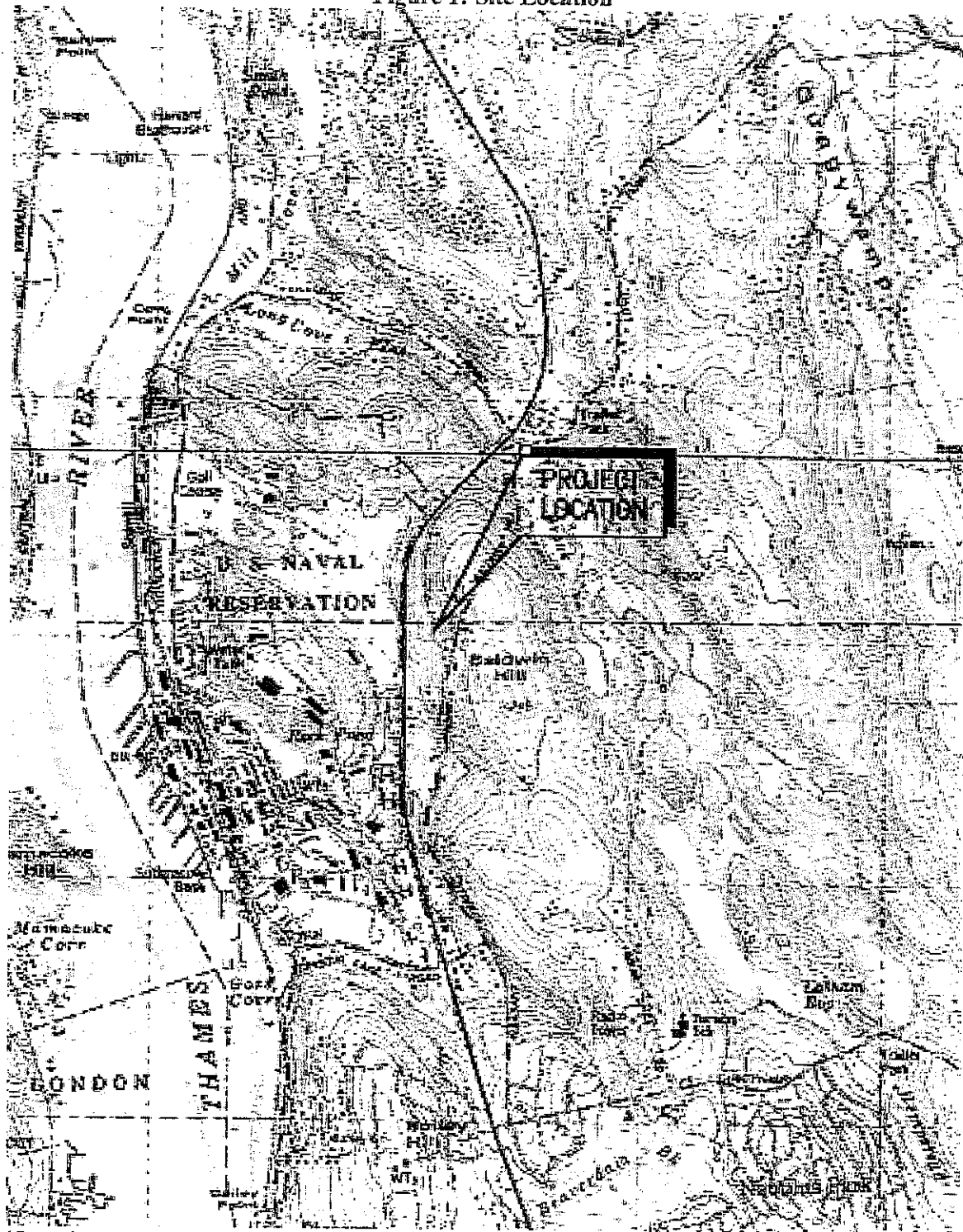
77. In order to provide reliable in-building coverage on the naval base, T-Mobile needs a signal strength of -76 dBm or better. T-Mobile could achieve this signal strength for most of the naval base with its antennas at 137 feet AGL. If its antennas were located at 127 feet AGL, T-Mobile would lose some of its in-building coverage. (Tr. 1, pp. 23-24)
78. T-Mobile would be able to hand 760 simultaneous calls from the submarine base utilizing the proposed site and an additional, existing site that provides some coverage to the southern-most area of the base. (Late-filed Responses from Co-Applicants to Comments from the Connecticut Siting Council, dated May 17, 2007, Answer 2)
79. The minimum height at which T-Mobile could achieve its coverage objectives at the proposed site is 137 feet AGL. (Tr. 1, pp. 25-26)
80. Existing adjacent T-Mobile sites that would interact with the proposed site are presented in the table below. None of these existing sites provides adequate coverage to the target service area.

Location	Antenna Height agl	Approximate Distance from Site
136 Vinegar Hill Road, Ledyard	187.5 feet - lattice	2.12 miles northeast
71 Moxley Hill Road, Montville	150 feet - guyed lattice	3.38 miles northwest
861 Vauxhall Street Extension, Waterford	112 feet - water tank	3.7 miles west
53 Dayton Road, Waterford	165 feet - lattice	3.5 miles southwest
281 State Street, New London	157 feet - rooftop	3.24 miles southwest
29 Skyview Terrace, Groton	65 feet - water standpipe	1.37 miles south
404 Bridge Street, Groton	60 feet - billboard	2.68 miles south

(Optasite 2, Responses 16 & 17)

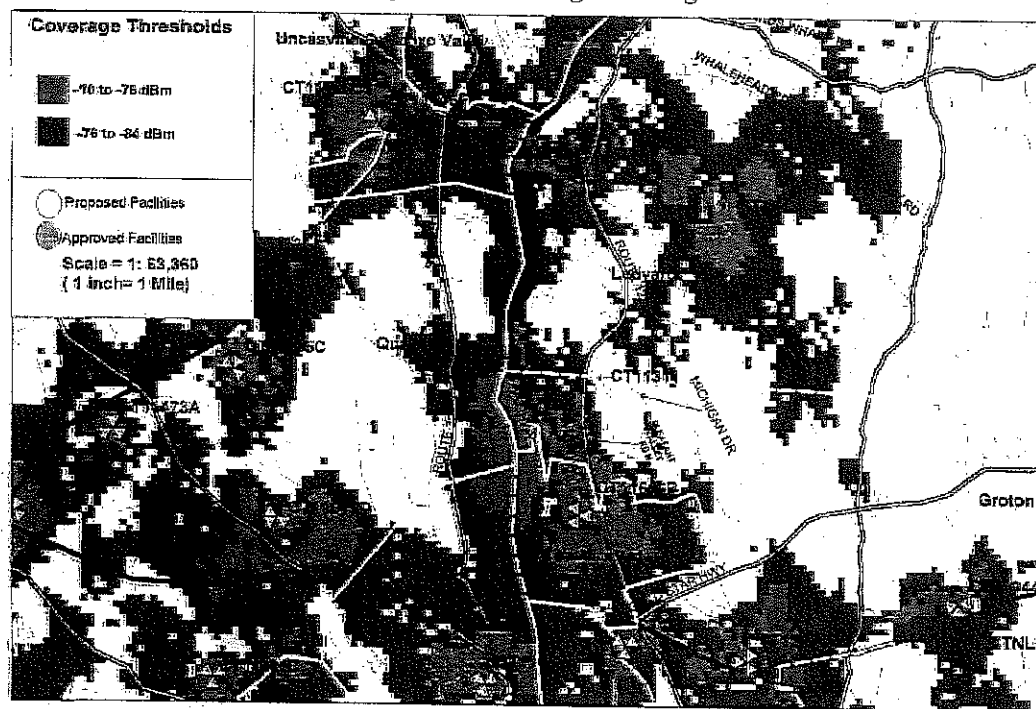
81. T-Mobile's antennas would cover approximately 11.96 square miles from the proposed site. (Optasite 2, Response 25)
82. A small pocket along Route 12 would remain without coverage even with T-Mobile's antennas at 137 feet AGL. T-Mobile does not have any plans that would fill this hole in its coverage. (Tr. 1, pp. 35-36)
83. Because this coverage gap is in a small valley along Route 12, T-Mobile would need at tower well over 200 feet high at the proposed location to be able to cover this area. (Tr. 1, pp. 60-61)

Figure 1: Site Location



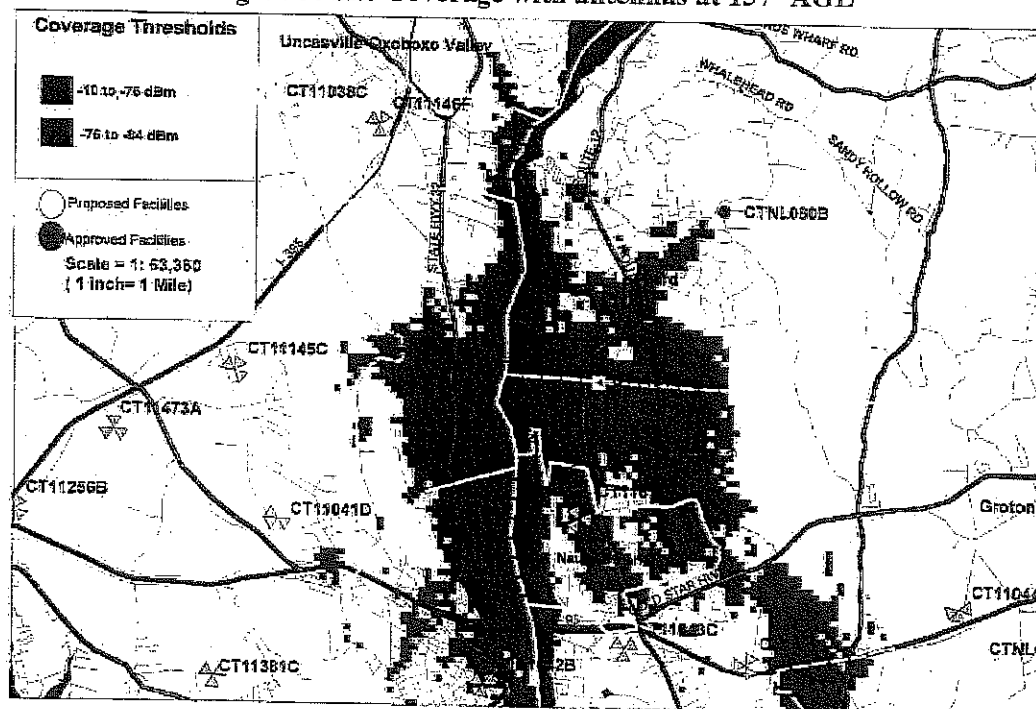
(Optasite 1, Exhibit A)

Figure 2: Existing Coverage



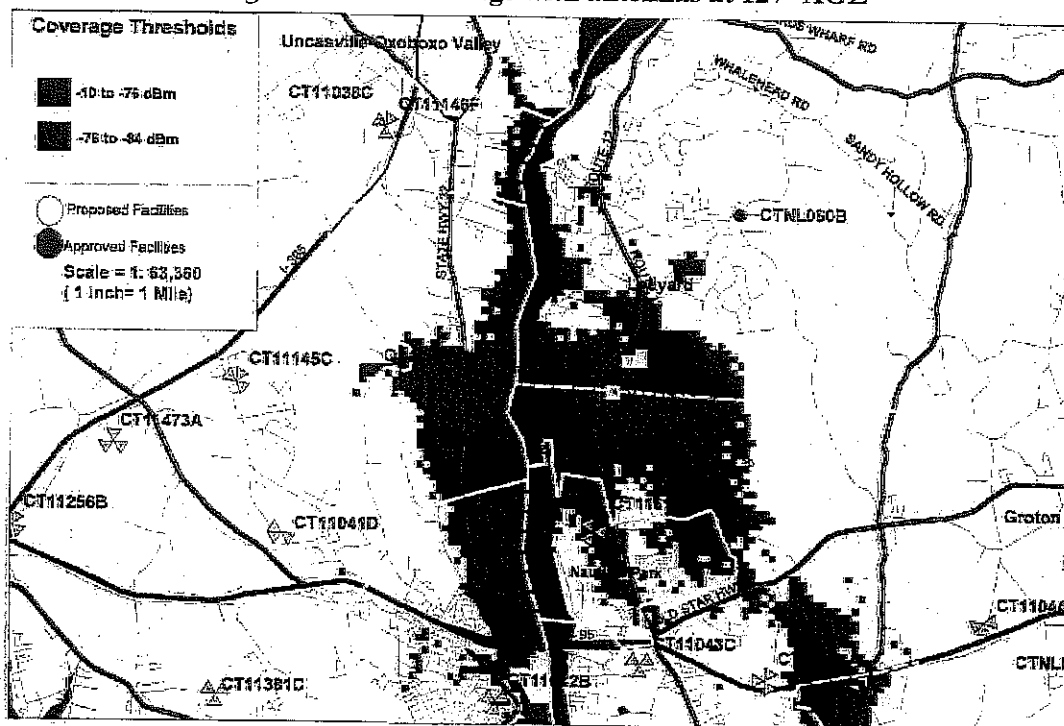
(Optasite 1, Exhibit F)

Figure 3: Site Coverage with antennas at 137' AGL



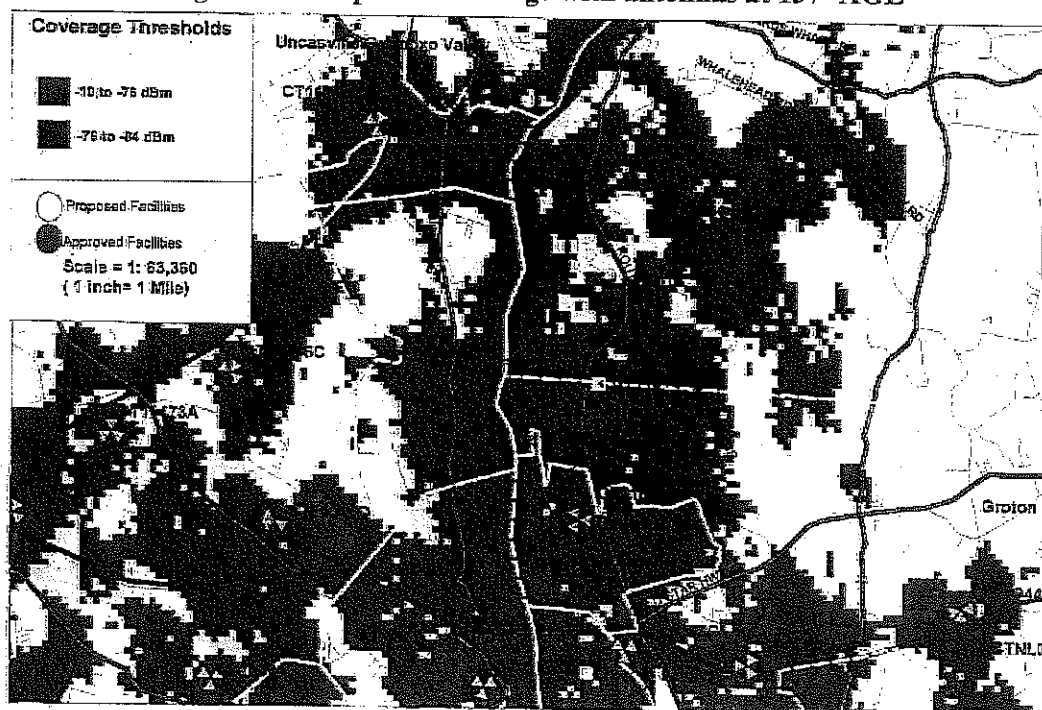
(Optasite 9)

Figure 4: Site Coverage with antennas at 127' AGL



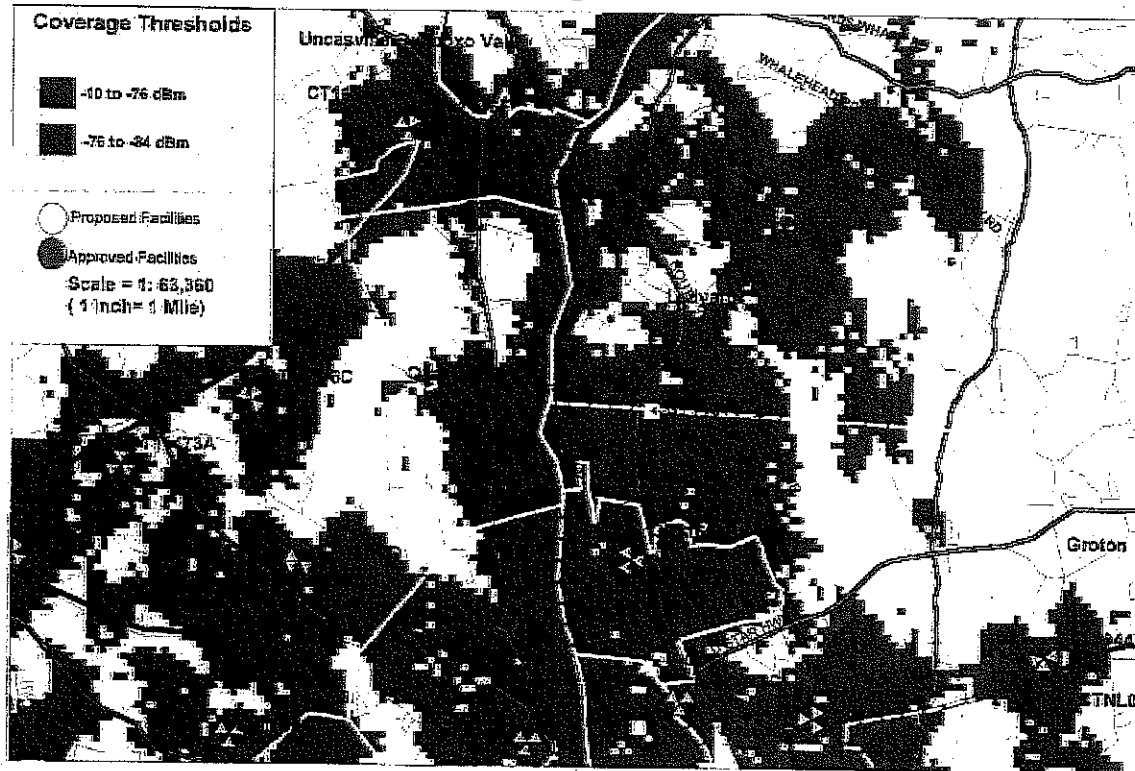
(Optasite 9)

Figure 5: Composite Coverage with antennas at 137' AGL



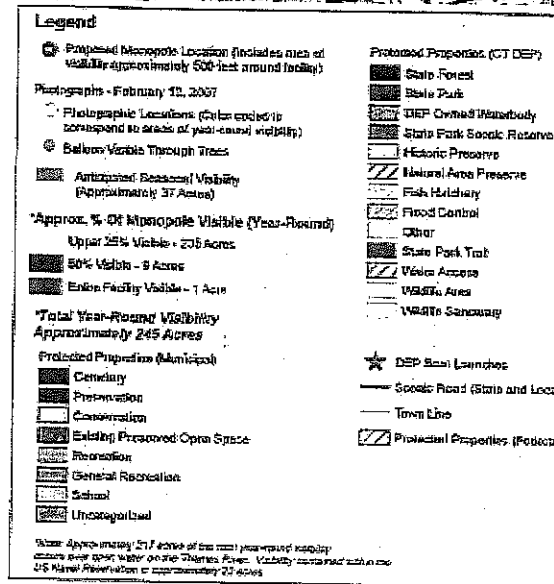
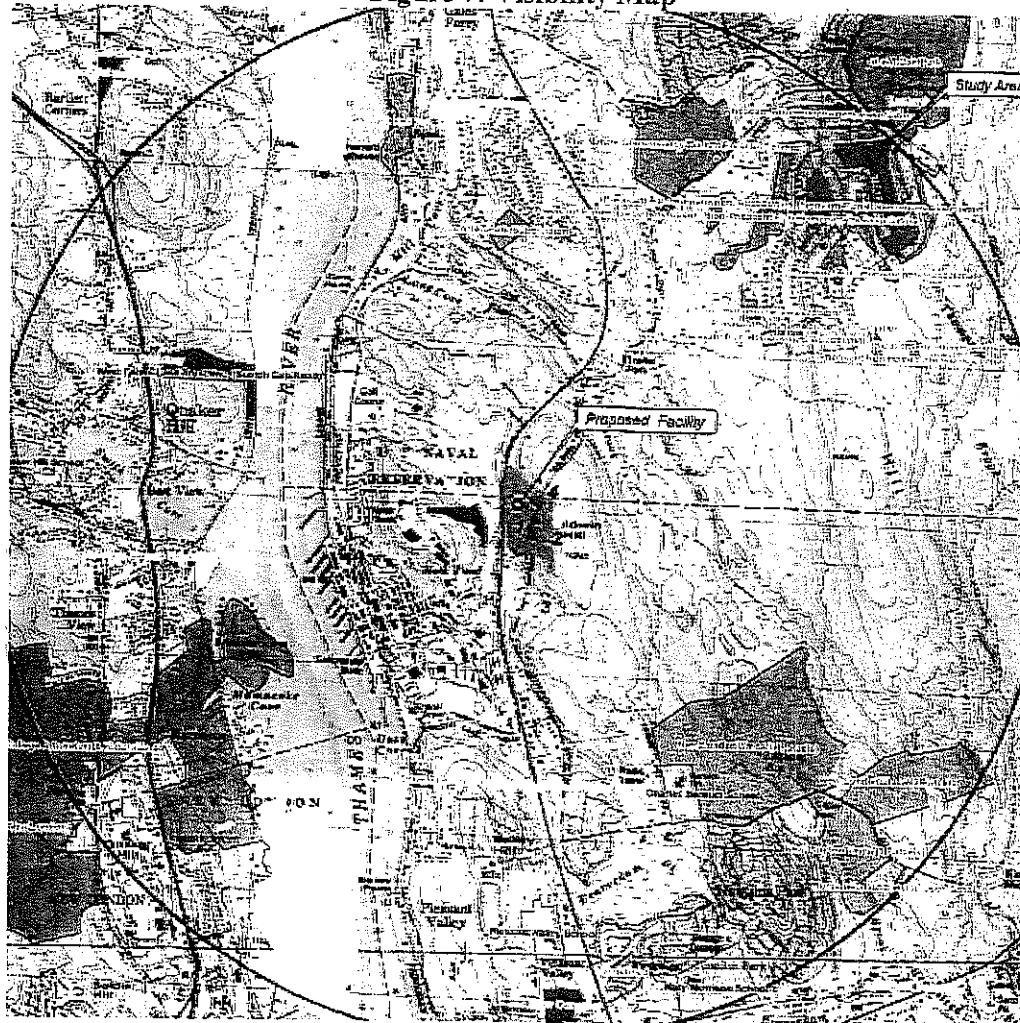
(Optasite 9)

Figure 6: Composite Coverage with antennas at 127' AGL



(Optasite 9)

Figure 7: Visibility Map



(Optasite 1, Exhibit J)